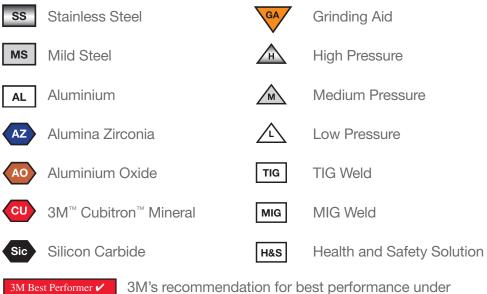
3M Abrasive Systems Metalworking Application Guide



Advanced Vietalworking with 3M support



Product symbols



3M's recommendation for best performance under optimum conditions where value can be measured

Safety Icons



Extra level of eye protection suggested







Finishing and Surface Conditioning

Efficient, effective solutions for finishing:

- Matching and blending surface finishes
- Final blending
- Paint preparation

Page No.	Abrasive System		Products	
54		Straight grinder with pneumatic wheel & portable flexible shaft machine	3M Trizact [™] CF Cloth Belt 337DC Scotch-Brite [™] Surface Conditioning Belt SC-BS Scotch-Brite [™] Finishing Wheel	
55		File belt tool	3M Trizact CF Cloth Belt 337DC Scotch-Brite Surface Conditioning Belt SC-BS	
56		Straight die grinder	Roloc+ [™] Combi Flap Brush Roloc+ Flap Brush Accessories	
57		Stroke sander / overhead belt machine	3M Trizact CF [™] Cloth Belt 337DC 3M Trizact Cloth Belt 237AA Scotch-Brite Surface Conditioning Belt SC-BL / SC-BF	
58		Random orbital sander	3M Hookit [™] Disc 245 3M Hookit [™] Disc 255P Accessories	
59		Backstand / Linisher	3M Trizact CF Cloth Belt 337DC 3M Trizact Cloth Belt 237AA Scotch-Brite Surface Conditioning Belt SC-BL	
60		Tube finisher	3M Trizact CF Cloth Belt 337DC 3M Trizact Cloth Belt 237AA Scotch-Brite SC-BL	
61		Spindle machine - bench / floor	Scotch-Brite Lap Mop Scotch-Brite Flap Brush Scotch-Brite Finishing Wheel	
62	6	Match & finish system	Scotch-Brite Surface Conditioning Belt SC-BF Scotch-Brite Mini Flap Brush Accessories	
63		By hand (handpad holder)	Scotch-Brite Handpads Scotch-Brite Pre-Cut Handpads Accessories	

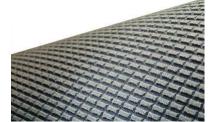
Straight grinder with pneumatic wheel Portable flexible shaft machine

- For graining and finishing a range of metal fabricated parts
- Ideal for large accessible areas
- Straight grinder has shaft to fit pneumatic wheel for use with belts, or direct fitting of Scotch-Brite[™] Wheels
- Portable flexible shaft machine offers versatility through a variety of detachable tool heads

Top tip

Use Scotch-Brite[™] Surface Conditioning Belt in ACRS grade as a final process step to produce a standard 3B finish on stainless steel.

3M[™] Trizact[™] CF Cloth Belt 337DC



- Macro-replicated structured abrasive provides a consistent finish with exceptional life when compared to conventional abrasives
- Soft edge structure in conjunction with flexible backing provides good cut rate with blending capabilities

A100

453136

441360

431256

431534

431551

A65

442758

436091

431252

431536

431556

A45

442761

441359

441357

431594

65325

3M 337DC

40mm x 395mm

90mm x 395mm

50mm x 450mm

25mm x 480mm

50mm x 480mm

Scotch-Brite Surface Conditioning Belt



- A tough, non-woven nylon web impregnated with mineral throughout its structure, provides a uniform consistent finish
- Produces a smooth, burr-free surface ideal for pharmaceutical and catering equipment fabrications
- Spring-like action of the nonwoven web delivers excellent soft edge properties for the best blended finish

SC-BS	Heavy Duty	ACRS	AMED	
40mm x 400mm	-	-	-	
90mm x 395mm	-	05658	-	
50mm x 450mm	-	189172	-	
25mm x 490mm	-	-	-	
50mm x 490mm	-	-	-	
3M Best Performer 🖌				



Scotch-Brite Finishing Wheel



- Convolutely wound construction provides a long product life with less conformability than a flap brush
- Range of grades available to achieve required finishes consistently throughout product life
- Remove small imperfections without dimensioning the part, meaning less re-work and a better quality finish first time

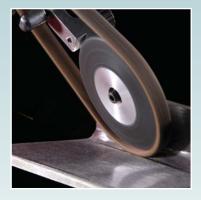


FS-WL	2SCRS	2SMED
150mm x 50mm x 25.4mm	30208	30209

FL-AC flange	
25.4mm x 12.7mm	61327

File belt tool

- Lightweight, hand held tool with ergonomic offset design
- Increases capability to access hard-to-reach areas through a comprehensive range of contact arms
- Quick belt change feature





3M Trizact[™] CF Cloth Belt 337DC



- Macro-replicated structured abrasive provides a consistent finish with exceptional life when compared to conventional abrasives
- Soft edge structure in conjunction with flexible backing provides good cut rate with blending capabilities
- A tougher alternative to conventional Trizact abrasives, for file belt applications

3M 337DC	A100	A65	A45
13mm x 305mm	427975	-	442859
13mm x 457mm	434586	427865	440198
20mm x 457mm	437881	-	-
13mm x 533mm	-	-	-
13mm x 610mm	430567	427047	444051

Scotch-Brite Surface Conditioning Belt



- A tough, non-woven nylon web impregnated with mineral throughout its structure, provides a uniform consistent finish
- Produces a smooth, burr-free surface ideal for pharmaceutical and catering equipment fabrications
- Spring-like action of the nonwoven web delivers excellent soft edge properties for the best blended finish

	Heavy Duty	ACRS	AMED
13mm x 305mm	-	65344	65345
13mm x 457mm	-	65141	65232
20mm x 457mm	-	66143	65234
13mm x 533mm	-	05325	65244
13mm x 610mm	-	05655	65250

Straight die grinder

- For graining and finishing a range of metal fabricated parts
- Ideal for small or confined areas
- Allows the use of 3M[™] Roloc[™] fixing mechanism to mount a range of 3M Roloc+ Quick Release Products without the use of tools/spanners



Roloc+ Combi Flap Brush



- Alternate flaps of coated abrasive cloth and Scotch-Brite[™] Web
- More aggressive than a Scotch-Brite Flap Brush, for removing light scratches and re-graining

Roloc+ Combi Flap Brush CB-ZR	P80	P120	P180	
63mm x 32mm	09717	09720	09723	
3M Best Performer 🗸				

Roloc+ Flap Brush



- Each brush consists of flaps of Scotch-Brite material, designed to give a consistent finish throughout product life
- Blends with soft edge action to match required finishes after a refining process





Roloc+ Accessories



- Plastic holder with internal thread to matches Roloc+ spindle on brushes
- Incorporates a 6mm shaft for easy mounting into die grinder collet

Roloc+ Accessory	Holder No. 1
6mm x 25mm	09884

Finishing

Stroke sander Overhead belt machine

- For graining and finishing of most flat and box section parts
- Ideal for semi-automation of medium size production parts
- Opportunity to improve productivity and consistency of finish over a large area due to the fixed position of the belt



Top tip

Use Scotch-Brite[™] 'film-backed' belts for smooth running on the sander pad for flat surfaces; use Scotch-Brite 'low-stretch' belts where greater conformability is required.

3M[™] Trizact[™] CF Cloth Belt 337DC



- Macro-replicated structured abrasive provides a consistent finish with exceptional life when compared to conventional abrasives
- The soft edge structure and flexible backing of this product provide good cut rate with blending capabilities

3M 337DC	A100	A65	A45
100mm x 4000mm	429126	-	429143
150mm x 6000mm	-	-	-
100mm x 9000mm	436656	444804	447398





- Micro-replicated structure of precisely positioned 3D pyramids of abrasive on the belt's backing increases mineral and grinding aid content, resulting in consistent and predictable finishes, cooler cutting and extended belt life
- Designed for the polishing process where it facilitates a reduction in the number of steps required

3M 237AA	A45	A30	A16		
100mm x 4000mm	364053	-	364052		
150mm x 6000mm	-	451295	-		
100mm x 9000mm	358233	358234	420330		

Scotch-Brite Surface Conditioning Belts



- A tough, non-woven nylon web impregnated with mineral throughout its structure, provides a uniform consistent finish
- Produces a smooth, burr-free surface ideal for pharmaceutical and catering equipment fabrications
- Spring-like action of the nonwoven web delivers excellent soft edge properties for the best blended finish



SC-BL	ACRS	AMED			
100mm x 4000mm	-	-			
150mm x 6000mm	238049	243535			
100mm x 9000mm	-	322630			
3M Best Performer 🖌					

SC-BF	ACRS	AMED
100mm x 4000mm	-	-
150mm x 6000mm	-	-
100mm x 9000mm	358448	255278

Finishing

Random orbital sander

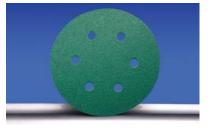
- Orbital motion produces a random scratch pattern
- Use for paint preparation
- Idea for large accessible areas



Top tip

Always start the machine on the work surface and stop the machine off the work surface. This prevents unwanted deep scratch marks.

3M Hookit[™] Disc 245



- Hookit fixing system means discs can be attached and reattached as many times as necessary
- Ideal choice for more demanding finishing applications due to heavy duty E-weight paper backing
- Open coat construction helps prevents premature loading and extends product life

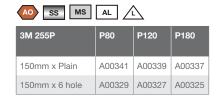


3M 245	P80	P120
150mm x Plain	A01647	A01645
150mm x 6 hole	A01689	A01687
3M Best Performer 🗸		



3M Hookit Disc 255P

- Hookit fixing system means discs can be attached and reattached as many times as necessary
- High performance C-weight paper disc suited to lighter finishing applications
- Incorporates Fre-Cut[™] Anti Loading coating to prevent clogging and extends product life refining process



3M Hookit Back Up Pad



- Rated to 12,000 rpm for use on the latest higher speed random orbital sanders
- Durable polyurethane construction for maximum life and good flexibility
- Well balanced for smooth running and reduced vibration

Hookit Back Up Pad	
150mm x Plain	07389
150mm x 6 hole	05876

Backstand machine Linisher

- For graining and finishing of most small fabricated parts
- Ideal for higher volume and complex parts where greater control is needed - part to belt.
- Increases capability to achieve desired finish through the choice of different contact wheel designs





3M[™] Trizact[™] CF Cloth Belt 337DC



- Macro-replicated structured abrasive provides a consistent finish with exceptional life when compared to conventional abrasives
- The soft edge structure and flexible backing of this product provides good cut rate with blending capabilities
- Robust structure enables use on medium / hard contact wheels
 around 65 shore hardness

3M 337DC	A100	A65	A45
50mm x 1525mm	423258	427505	427506
75mm x 2000mm	430720	423604	431146
150mm x 2000mm	443472	445768	450453
100mm x 2500mm	441885	437426	435093

3M Trizact Belts 237AA



- Micro-replicated structure of precisely positioned 3D pyramids of abrasive on the belt's backing increases mineral and grinding aid content, resulting in consistent and predictable finishes, cooler cutting and extended belt life
- Designed for the polishing process where it facilitates a reduction in the number of steps required.
- Due to the unique precision structure of the abrasive coating, optimised product performance is achieved on medium/soft contact wheels - around 45 shore hardness

3M 237AA	A45	A30	A16
50mm x 1525mm	243538	243537	241629
75mm x 2000mm	408682	408790	380762
150mm x 2000mm	375190	240446	460970
100mm x 2500mm	276186	318782	318783

Scotch-Brite[™] Surface Conditioning Belt



- A tough, non-woven nylon web impregnated with mineral throughout its structure, provides a uniform consistent finish
- Produces a smooth, burr-free surface ideal for pharmaceutical and catering equipment fabrications
- Spring-like action of the non woven web delivers excellent soft edge properties for the best blended finish on most contact wheels.

SC-BL	ACRS	AMED
50mm x 1525mm	238418	250371
75mm x 2000mm	221744	221745
150mm x 2000mm	189238	190505
100mm x 2500mm	438035	437961
3M Best Performer	/	

Finishing

Tube finisher (portable/planetary)

- Choice of either a fixed planetary machine or hand held tube finisher, dependent on production volumes and type of component
- Can handle both bent and straight tubes
- Quickly and efficiently finishes tubing: handheld tools have good wrap-around, whilst planetary machines can achieve 100% coverage in one pass



3M[™] Trizact[™] CF Belt 337DC



- Macro-replicated structured abrasive provides a consistent finish with exceptional life when compared to conventional abrasives
- The soft edge structure and flexible backing of this product provides good cut rate with blending capabilities

3M 337DC	A100	A65	A45
40mm x 610mm	-	-	-
40mm x 820mm	432244	449803	-
60mm x 940mm	427458	427459	427461

3M Trizact[™] Belt 237AA



- Micro-replicated structure of precisely positioned 3D pyramids of abrasive on the belt's backing increases mineral and grinding aid content, resulting in consistent and predictable finishes, cooler cutting and extended belt life
- Designed for the polishing process where it facilitates a reduction in the number of steps required

3M 237AA	A45	A30	A16
40mm x 610mm	246556	246558	246559
40mm x 820mm	-	335985	335989
60mm x 940mm	339622	339614	332666

Scotch-Brite[™] Surface Conditioning Belt



- A tough, non-woven nylon web impregnated with mineral throughout its structure, provides a uniform consistent finish
- Produces a smooth, burr-free surface ideal for pharmaceutical and catering equipment fabrications
- Spring-like action of the non woven web delivers excellent soft edge properties for the best blended finish on most contact wheels

SC-BL	ACRS	AMED	
40mm x 610mm	-	-	
40mm x 820mm	-	320856	
60mm x 940mm	-	304525	

3M Best Performer 🗸

Spindle machine (bench/floor)

- For finishing and polishing most small fabricated parts
- Ideal for higher volume and complex parts where greater control is needed - part to abrasive
- Ability to mount large range of different rotary abrasives to achieve desired finish (e.g. wheels, brushes, mops)



Top tip

The Scotch-Brite[™] 2S MED Finishing Wheel is the best option to match an existing 3B finish after the refining step.

Scotch-Brite[™] Finishing Wheel



- Convolutely wound construction provides a long life product with less conformability than a flap brush
- Range of grades available to achieve required finishes consistently throughout product life
- Removes small imperfections without dimensioning the part, meaning less re-work and a better quality finish first time

1 3				
FS-WL		5AMED		
150mm x 25mm x	25.4mm	337105		
200mm x 50mm x	76.2mm	93370		
Sic SS AL				
FS-WL		2SMED		
150mm x 25mm x	25.4mm	18757		
200mm x 50mm x	76.2mm	18759		
3M Best Perform	mer 🖌			
Accessories	Flanges	Tapered Spindle Adaptor		
25.4mm x 12.7mm	61327	N/A		
76.2mm x 12.7mm	A61311	N/A		

76.2mm x x50mm width N/A

Scotch-Brite[™] Lap Mop



- Designed to be mounted on tapered spindles
- High strength disc construction for maximum life and high conformability
- Use Medium grade for 3B type finishes or Very Fine grade for finer satin finishes



Scotch-Brite Lap Mop	AMED	AVFN
100mm x 6 discs	09965	09964
150mm x 6 discs	09969	09968

Scotch-Brite Flap Brush



- Each brush is made up with flaps of Scotch-Brite material, designed to give a consistent finish throughout its long life
- Blends with soft edge action to match required finishes after a refining process

76.2mm x x50mm width

Scotch-Brite Flap Brus	sh	CF-FB 5AVFN	CF-FB 5AFN	CP-FB 7AMED
150mm x 25mm x 25.4n	nm	-	-	-
200mm x 50mm x 76.2n	nm	343335	365163	138658
Accessories	Flan	ges		d Spindle
Accessories	Flan	ges	Tapere Adapto	
Accessories 25.4mm x 12.7mm	Flan 6132			

N/A

09662

Where no part number is shown, please call the Customer Services Team for availability on 0161 237 6390.

09662

Match & finish system

- A single system for graining, blending and finishing, especially useful for stainless steel fabricators
- Ideal for flat, accessible areas
- Optimum finishing system for finishing stainless steel due to its convenience, flexibility and portability



Top tip

The Scotch-Brite[™] CS-MB or SC-BF ACRS products are the best options to match an existing 3B finish after the refining step. Finish can be softened by using them in conjunction with 3M Stainless Steel Cleaner.

Scotch-Brite[™] Surface Conditioning Belts



- A tough, non-woven nylon web impregnated with mineral throughout its structure, provides a uniform consistent finish
- Produces a smooth, burr-free surface ideal for pharmaceutical and catering equipment fabrications
- Spring-like action of the non woven web delivers excellent soft edge properties for the best blended finish

SC-BF	ACRS	AMED
100mm x 289mm	66159	55160
100mm x 280mm	-	-
3M Best Performer 🖌		

Scotch-Brite Mini Flap Brush



- Each brush is made up with flaps of Scotch-Brite material, designed to give a consistent finish throughout its long life
- Blends with soft edge action to match required finishes after refining process
- Supplied with 4 keyway 19mm bore design to fit all machines in this category

Scotch-Brite	CS-MB	CP-MB
Mini Flap Brushes	ACRS	AMED
100mm x 100mm x 19mm	00577	

Accessory – pneumatic wheel



- Inflates to desired firmness to optimise finish and minimise chatter
- Provided with valve suitable for most inflation devices for easy replacement of belts
- Light weight, well balanced design to minimise vibration

Accessory - Pneumatic Wheel	Rubber
90mm x 100mm x 19mm	09325

Please see our 'Optimum Process Guides' section for tips on an easy 3-step match and finish operation.

By hand

- Final blending by hand allows the operator to correct any areas of mismatch, putting the final touch to a job
- Use of the 3M Handpad Holder evens out the pressure applied resulting in a uniform finish

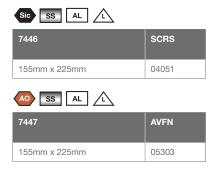




Scotch-Brite[™] Handpads



- Non-woven nylon web impregnated with mineral throughout its structure provides a uniform, consistent, burr-free finish
- Excellent material flexibility for finishing in all areas



Scotch-Brite Pre-Cut Purple Handpads



- An improved line of Scotch-Brite handpads offering longer life, higher cut and a more consistent finish over standard pads
- The cost effective 'hand sized' pads (designed to fit the 3M Handpad Holder) are supplied in pre-cut sheets on a roll for ease of use and to reduce product wastage



Accessories



- 3M recommends using the 3M Handpad Holder with Scotch-Brite Handpads for surface blending
- 3M Stainless Steel Cleaner, used in conjunction with a Scotch-Brite Handpad, helps to produce a matt finish (lower reflectivity) and provides protection against handling marks

Accessories - Handpad holder	Holder			
89mm x 120mm	00961			
3M Stainless Steel & Cleaner & Polish	Can			
600g Aerosol Can	STSTCAN			





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